



Accompanied by
robots, memes,
cats and unicorns



Microsoft Power Platform **CONFERENCE**

POWER BI

POWER AUTOMATE

POWER APPS

POWER VIRTUAL AGENTS

POWER PAGES

Nathalie Leenders via Power Automate 12:06 PM

**Taking Teams Adaptive Cards further
than ever before**



Nathalie Leenders
&
Chris Huntingford

Engage

Reply





Whova



The official event app for the **Microsoft Power Platform Conference – Fall 2023**

Join the event app to access:

- ➔ Event announcements
- ➔ Personalized agenda, session details
- ➔ Speaker & attendee profiles
- ➔ Networking, meet-ups, messages
- ➔ Event documents

**Event Invitation Code:
PPCFall2023**



WHO ARE WE?

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Chris Huntingford
Director of Digital Innovation
MVP Business Applications
Fast Track Recognized Solution Architect





WHO ARE WE?

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o



Nathalie Leenders
Power Platform Sr. Developer
MVP Business Applications



AGENDA



Nathalie Leenders via Power Automate 12:06 PM



Microsoft Power Platform CONFERENCE

Taking Teams Adaptive Cards further than ever before



Nathalie Leenders

&

Chris Huntingford

Agenda

- Intro - What are Teams Adaptive Cards?
- Technical structure
- Initiating Teams Adaptive Cards
- Teams Adaptive Cards VS Cards
- Understanding Teams Adaptive Cards Vs Approvals
- Different Scenarios
- GitHub Block/Next
- Deep Integration
- Recap
- Questions?

Give feedback

Reply





AGENDA



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- Agenda** Intro - What are Teams Adaptive Cards?
 - Technical structure
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 - Teams Adaptive Cards VS Cards
 - Understanding Teams Adaptive Cards Vs Approvals
 - Different Scenarios
 - GitHub Block/Next
 - Deep Integration
 - Recap
 - Questions?



ASK YOURSELF...

- How much time do you spend trying to collate data and figure out what on EARTH is going on within a specific process?
- Do you find that driving team interaction is like herding a flock of cute, rabid sea pirate cats?
- Do you struggle to get people TO JUST RESPOND?





I KNOW!!! LETS....

SEND A LOAD OF EMAILS AND WAIT FOR RESPONSES!





LET'S SHOW YOU HOW
TO TAKE THE ROBOT OUT
OF THE HUMAN!



TEAMS ADAPTIVE CARDS WHY USE THEM?

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-
- 1. Living life in outlook is changing. We are starting to collaborate more across other channels.
- 2. Multichannel is fine, when its necessary, but people still get confused about WHERE do I WHAT?
- 3. Generate a more refined approach to driving engagement rather than a terribly long texty input!

Making a pretty Card

By Nathalie Leenders
Created: August 28th

This card has a custom background, and a fly-out menu on the submit button. Cool right?

Submit



WHAT ARE TEAMS ADAPTIVE CARDS?

Leenders - den Nijls, Nathalie via Power Automate 8:04 PM

Approval needed for ID 42

Do you agree to the ultimate question of life, the universe, and everything?

Yes or No

Add remarks here

Submit

JSON

```
{ "type": "AdaptiveCard", "version": "1.0", "body": [ { "type": "TextBlock", "text": "Here is a ninja cat" }, { "type": "Image", "url": "http://adaptivecards.io/content/cats/1.png" } ] }
```

Microsoft HoloLens 2

An ergonomic, untethered self-contained holographic device with enterprise-ready applications to increase user accuracy and output.

FEATURES

Precision	Collaborate
Stay engaged heads-up, hands-free longer and more comfortably to safely complete tasks error-free.	Connect with remote colleagues – working together on holograms – to resolve issues in real time.
Innovate	App Ecosystem
Stay engaged heads-up, hands-free longer and more comfortably to safely complete tasks error-free.	Choose from over 200 enterprise-ready mixed reality solutions from Dynamics 365 and Mixed Reality Partners.

SPECs

Display	
Optics	See-through holographic lenses (waveguides)
Resolution	2k 3:2 light engines
Holographic density	More than 2.5k radians (light points per radian)
Eye-based rendering	Display optimization for 3D eye position
Sensors	
Head tracking	4 visible light camera

Let's go places

Current balance

Type	Hours	Days
Sick days	8 hrs	1 day
Paid time off	88 hrs	11 days
Wellness	12 hrs	1.5 days

Submit time off

To avoid forfeiture of time you need to take and submit all vacation hours for the current calendar year prior to December 31.

Type

Sick day

All day (8 hrs)

Date *

mm/dd/yyyy

Submit

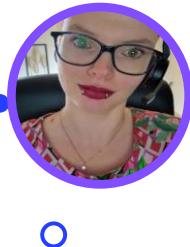
Cancel

Read FAQ



TECHNICAL STRUCTURE OF ADAPTIVE CARDS

A brief breakdown of how Adaptive cards fit together



The structure (JSON)

The root object describes the Adaptive Card itself.

- Type
- Schema version required to render it.

The body of the card
Made up of building-blocks known as elements.

- Elements can be composed in nearly infinite arrangements to create many types of cards.

Many cards have a set of actions a user may take on it.

- This property describes those actions which typically get rendered in an "action bar" at the bottom.

Add an action

Action.OpenUrl

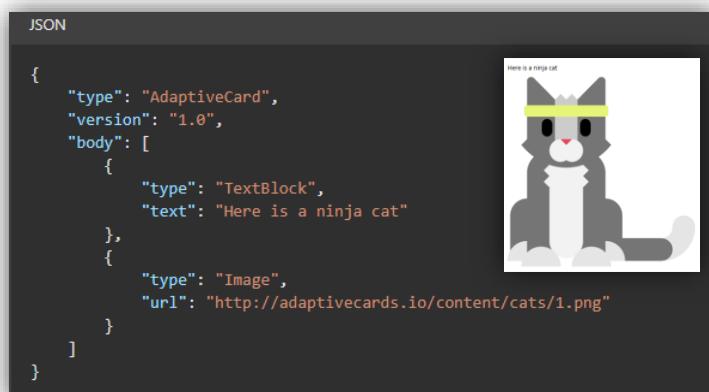
Action.Submit

Action.ShowCard

Action.ToggleVisibility

Action.Execute

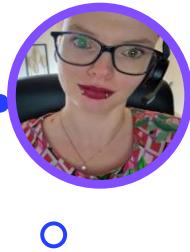
```
JSON
{
  "type": "AdaptiveCard",
  "version": "1.0",
  "body": [
    {
      "type": "TextBlock",
      "text": "Here is a ninja cat"
    },
    {
      "type": "Image",
      "url": "http://adaptivecards.io/content/cats/1.png"
    }
  ]
}
```



Quick JSON with PNG



Same JSON with GIF



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Types and styles

Types

- Text
- Numbers
- Checkboxes
- Dropdowns
- Choice sets
 - (through graph also people picker possibilities)
- Time and Date
- Mentions @
- Multiple answers possible
- Emoticons
- Expanding images
- HTML formatting
- Media (audio and video!)

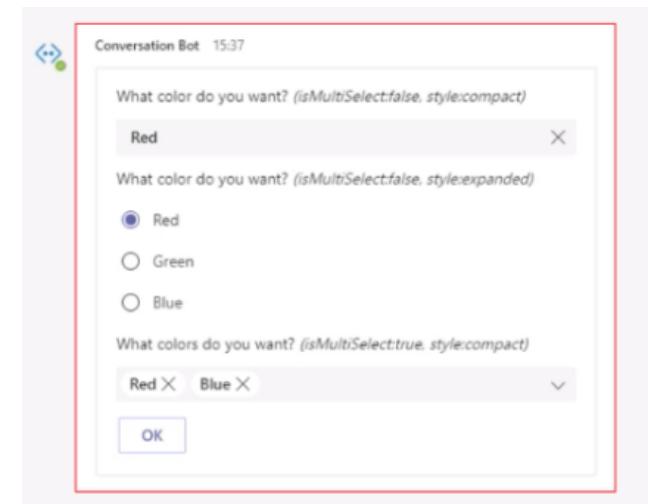
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Styles

- Hidden field - Password
- Email
- URL
- Text
- Phone numbers



Current Teams version supported: 1.5
Not supported yet: Metadata (1.6)



Tip! Designing your card – formatting/options

- Backgrounds
 - Use an image stored online
- Colors
 - Dark (dark black)
 - Light (light black)
 - Accent (blue)
 - Good (green)
 - Warning (red)
 - Attention (red)
- You can embed a card in a card as a fly-out
- Icons
- Create timelines
- Fallback text
- Conditional highlighting
- Tabs
- Expand line items
- Accordion
- Recreate like buttons through Icons and action.togglevisibility

The image shows a slide from the Microsoft Power Platform Conference. The title is "Microsoft Power Platform CONFERENCE". Below the title, it says "Taking Teams Adaptive Cards further than ever before". There are two speakers listed: "Nathalie Leenders" and "Chris Huntingford". A cartoon character is also present on the slide. At the bottom right, there is a button labeled "Give feedback".



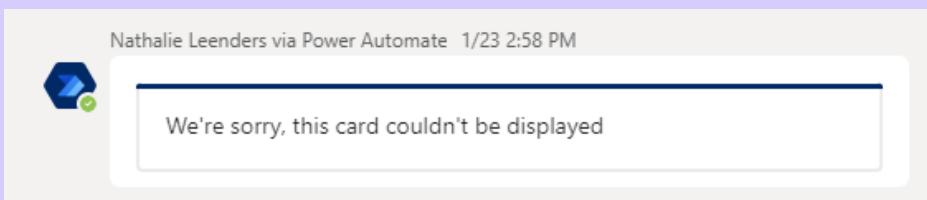
Known errors

Error:

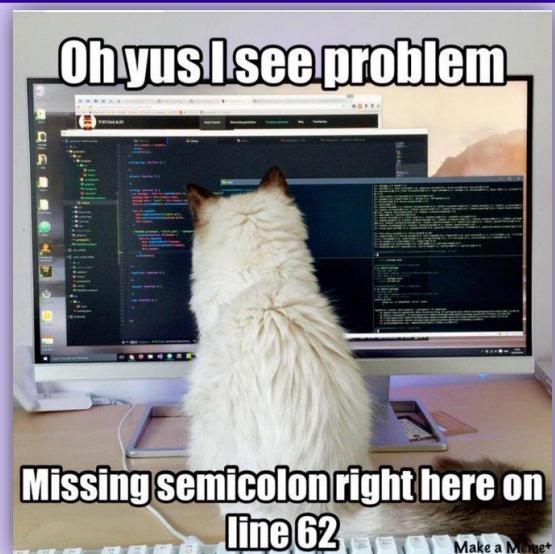
```
{  
  "error": "The payload is too large. Please make sure the size is less than 28KB."  
}
```

Solution:

Decrease the size of your adaptive card or remove/decrease your base64 images.
Remove line breaks, tabs, double spaces and make the json smaller.
(this one from the example had 706 lines)

Error:**Solution:**

Something in your JSON is incompatible with Teams.
Check the schema and re-evaluate your code.
This can also happen if you make your card in Cards.





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 - **INITIATING ADAPTIVE CARDS**
 -

Power Automate Actions

How do we initiate Teams adaptive cards?



Teams Adaptive Card actions

The screenshot shows the Microsoft Flow interface with the 'Actions' tab selected under the 'Microsoft Teams' connector. The actions listed are:

- Post a choice of options as the Flow bot to a user (Microsoft Teams)
- Post adaptive card and wait for a response (Microsoft Teams)** - This action is highlighted with a yellow background.
- Post card in a chat or channel (Microsoft Teams)
- Post message in a chat or channel (Microsoft Teams)
- Reply with a message in a channel (Microsoft Teams)
- Reply with adaptive card in a channel (Microsoft Teams)** - This action is highlighted with a yellow background.
- Respond in Teams task module (Microsoft Teams)
- Update an adaptive card in a chat or channel (Microsoft Teams)** - This action is highlighted with a yellow background.
- Add a member to a tag (Microsoft Teams)

No output, merely giving information

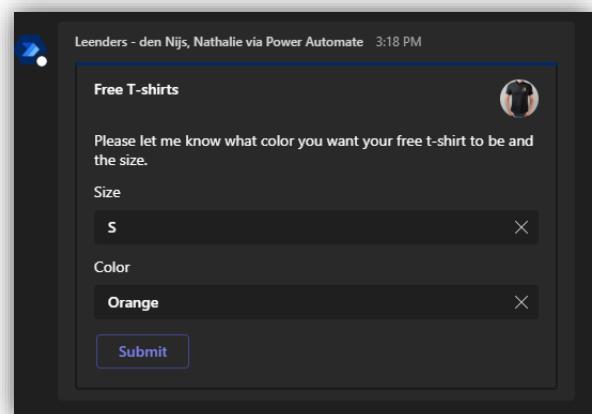
Can be used for:

- Metrics/KPI reporting
- Information pertaining new requests
- Updating current cards in channels
- Notify someone of an app change
- And many more

Requesting information

Can be used for:

- Approvals
- Information forms
- Feedback gathering
- Lunch feedback
- And many more





Putting the 'Adaptive' in Teams Adaptive cards

The screenshot shows the Microsoft Flow 'Actions' connector interface. It lists several actions under the 'Microsoft Teams' category:

- Post a choice of options as the Flow bot to a user
- Post adaptive card and wait for a response
- Post card in a chat or channel
- Post message in a chat or channel
- Reply with a message in a channel
- Reply with adaptive card in a channel
- Respond in Teams task module
- Update an adaptive card in a chat or channel** (This action is highlighted with a purple border)
- Add a member to a tag

A card is both responsive to input and can respond/update based on your preferred method.

Take note, updating an adaptive card can only be done if it's been sent by a Flow Bot to a channel or group chat Not to an individual chat

For example, you can update a card with new information without having to send another one.



TEAMS ADAPTIVE CARDS VS CARDS



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<https://adaptivecards.io/designer/>

<https://learn.microsoft.com/en-us/power-apps/cards/overview>



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Adaptive Card vs cards

Adaptive Card

- Easy interface
- No coding background needed
- Easily add controls to your card
- Reflect the code in a Teams card
- Save the JSON or in a flow to move through solutions.
- Post to Individual Chat, Group chat or Channel

Cards

- Easy to understand PowerApps Studio interface
- No active troubleshooter for Teams
- Need to copy into IO to see the errors in your code
- You can add cards in your solution and move through your ALM process

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<https://adaptivecards.io/designer/>

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Card maker studio

- Supports PowerFX (not fully).
- Save the cards in your solution or environment for ALM.
- Easy to use Power Apps Studio interface.
- You can copy the card in a chat in Teams directly,
no Power Automate needed.
- Export your JSON/Schema.
- No troubleshooting options/error handling for Teams.
- Doesn't always work when trying to post into Teams.

The screenshot shows the Microsoft Power Apps interface. On the left, a sidebar menu includes Home, Create, Learn, Apps, Tables, Flows, Solutions, Connections, Choices, Cards (which is selected and highlighted in purple), and More. Below the sidebar is a section titled 'Create a card' with the sub-instruction 'Cards let you create low code, interactive UI. Use them to share, collect, and connect data.' A 'Learn more' link is also present. At the bottom of this section are tabs for 'My cards' and 'All cards'. To the right of this is a large, empty card template area with a placeholder icon.

The screenshot shows the Microsoft Power Apps interface in a card editor mode. The top navigation bar includes Back, View - Microsoft Teams - Dark, Refresh, and a search bar. The main area is titled 'Power Apps' and shows a card template with the placeholder 'Your card title goes here' and 'Add and remove element to customize your new card.' To the left is an 'Insert' ribbon with various UI element options like Display, Input, Layout, and Media. To the right is a properties panel for the main card element, which includes fields for 'On show' (set to 'fx Power Fx'), 'Fallback text', 'Speak', 'Minimum height', 'Present right to left', 'Content alignment', 'Background image', and 'Select action'.





AdaptiveCards.IO

The screenshot shows the Microsoft Teams Adaptive Cards Designer. On the left, the 'CARD ELEMENTS' sidebar lists various UI components like Container, ImageSet, FactSet, ColumnSet, Table, TextBlock, RichTextBlock, Image, Media, ActionSet, InputText, InputDate, InputTime, InputNumber, InputChoiceSet, and InputToggle. The main workspace displays a card titled 'Microsoft Hololens 2' with sections for FEATURES, SPECs, and Display. The 'FEATURES' section contains four columns: Precision, Collaborate, Innovate, and App Ecosystem. The 'Display' section lists Optics, Resolution, Holographic density, and Dyn-based rendering. The 'CARD PAYLOAD EDITOR' shows the JSON schema for the card structure, including properties for items, spacing, and widths. The 'SAMPLE DATA EDITOR' at the bottom shows a JSON object with fields like title, description, name, profileImage, createdUTC, viewedAt, and properties.

```
1 {  
2   "title": "Publish Adaptive Card Schema",  
3   "description": "Now that we have defined the main rules and features of the format, we need to  
4   "name": "Matt Hildigen",  
5   "profileImage": "https://pbs.twimg.com/profile_images/3647943215/d7f12830b3c17a5a9e4afcc",  
6   "createdUTC": "2017-02-14T06:00:39Z",  
7   "viewedAt": "https://adaptivecards.io",  
8   "properties": [  
9     {  
10       "key": "Board",  
11       "value": "Adaptive Cards"  
12     },  
13     {  
14       "key": "List",  
15       "value": "Backlog"  
16     },  
17   ],  
18 }
```

- No coding experience is needed.
- Drag and drop your actions, text blocks or others in your card.
- Active troubleshooting –

It gives you the errors if you're missing something

Or if something is incompatible with your schema.

- Preview your card the way Teams will display it.
- Choose your schema version.
- Other frameworks also possible to preview.
- No PowerFX integrated.





UNDERSTANDING ADAPTIVE CARDS VS. APPROVALS

What is the difference between the 2?

Aren't these just customized approvals?



Approvals vs Adaptive Cards

Adaptive Card

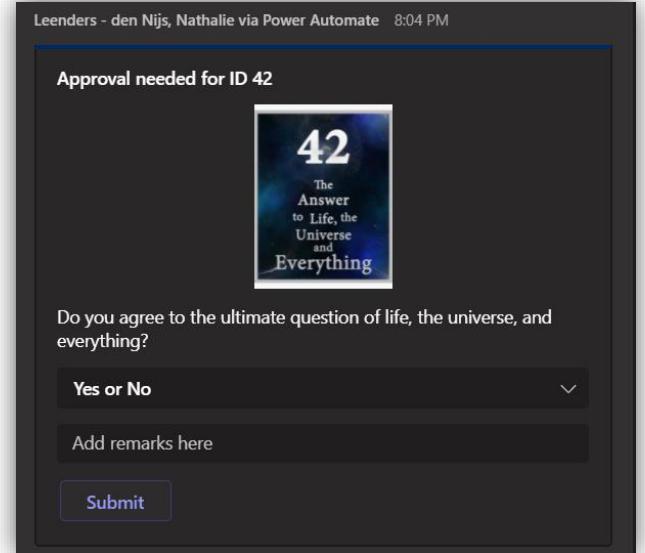


Pros

- Creative design through JSON
- Dynamic data from different sources
 - Input from Dataverse/SharePoint
 - Http/API calls output possible
- Custom output

Cons

- No first to respond/everyone, wait for one/all
 - Do until/For each action needed
- No built-in audit trails
- You need Power Automate
- Creativity limited by the Microsoft Teams environment/capabilities/version





Approvals vs Adaptive Cards

Approvals

Pros

- Recognizable
- Respond through Outlook or Teams
- One overview in Teams of all approvals
- Easily creatable without Apps or Flows
- Audit trails
 - Dates and other metadata
- Different approval orders
 - Everyone must approve/First to approve etc



Cons

- No design freedom
- No custom output meaning just a plain approval and comments
- Very limited customization options or custom logos

The screenshot shows an adaptive card interface for an approval request. The card has a dark background with white and light blue text. At the top left is a purple circular icon with a white arrow pointing clockwise. To its right is the word "Approvals" and "Approval request details". Below this is a green rectangular button with the word "Approved" in white. The main content area contains the text "Please provide [REDACTED] details and provide approval". Underneath, it says "Your researcher Nathalie [REDACTED] has submitted [REDACTED] please check [REDACTED]" and provides the date "Date submitted on project: 29-08-2022" and the location "Countries where the work was performed: emea". There is a section titled "Attachments" with a link to a SharePoint document. At the bottom, it shows "Final status: Approved" and "No response". In the bottom right corner, there is a button labeled "Save as PDF".



Approvals vs Adaptive Cards

Honorable mention – Approvals with text

- New since June 2023 - Send an approval per text
- Start and wait for an approval
 - Uses suggested text field
 - No need for an adaptive card in Teams



Feature	Power Automate	Power Automate mobile app	Outlook	Outlook Web	Teams	Teams mobile app	Approvals Teams App
Headers	Yes	Yes	Yes	Yes	No	No	No
Numbered Lists	Yes	Yes	No	Yes	Yes	Yes	No
Nested Numbered Lists	Yes	Yes	No	Yes	Yes	Yes	Yes
Tables	Yes	Yes	Yes	Yes	No	No	No
Images	No	No	No	No	No	No	No
Forced Line Breaks	Yes*	Yes*	No (use a blank line instead)	Yes*	Yes*	Yes*	No
Blank Lines	No	No	Yes	Yes	No	Yes	No
Emphasis	Yes	Yes	Yes	Yes	No	No	No

Use Markdown language to format Power Automate approvals

Approvals with text - Examples

Session proposal - Streamline business processes with Flow and Office 365

From: Mervan Hadzic

Requested: May 1, 2018 at 1:00 PM

Details

- Session Title: Streamline business processes with Flow and Office 365
- Conference: Ignite 2018
- Presenter:
- Session Level: 200
- Description: Easily add automation to workflows and approval processes for your Microsoft Dynamics 365 and Office 365 data that enable you to process requests, send notifications, and more - with just a couple clicks.

Link: [Streamline business processes with Flow and Office 365](#)

Advanced

Approve Reject



Approvals | Powered by Microsoft Flow

Pending approval

Requested by Mervan Hadzic
mervan.hadzic@microsoft.com

Details:

- Session Title: Streamline business processes with Flow and Office 365
- Conference: Ignite 2018
- Presenter: Mervan Hadzic
- Session Level: 200
- Description: Easily add automation to workflows and approval processes for your Microsoft Dynamics 365 and Office 365 data that enable you to process requests, send notifications, and more - with just a couple clicks.

Link: [Streamline business processes with Flow and Office 365](#)

Approve Reject

You can use:

- Bold, Italics, strikethrough formatting
- Headers
- HTML Links
- Tables
- Nested lists
- Bullet lists
- Special Characters
- Paragraphs and Line Breaks





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DIFFERENT SCENARIOS

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o
•

Warning, may contain Memes/Gifs

LETS DO SOME MORE DEMOS!!!

Some examples – PNP Samples



Microsoft HoloLens 2

An ergonomic, untethered self-contained holographic device with enterprise-ready applications to increase user accuracy and output.

FEATURES

Precision Stay engaged heads-up, hands-free longer and more comfortably to safely complete tasks error-free.	Collaborate Connect with remote colleagues – working together on holograms – to resolve issues in real time.
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SPECS

Display	
Optics	See-through holographic lenses (waveguides)
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Holographic density	More than 2.5k radians (light points per radian)
Eye-based rendering	Display optimization for 3D eye position
Sensors	
Head tracking	4 visible light camera

Distribution center #73

As of 11:45 AM • San Diego, CA

Available	Ready to ship
10.82M	946k
+8.00%	+2.56%

Top selling items

	Surface Pro Signature Keyboard 56k +11k	>
	Surface Slim Pen 2 4,556k	>
	Surface Adaptive Kit 256k +3k	>
	Surface 23W USB-C Power Supply 750k +123k	>
	Surface Earbuds 1,312k +423k	>
	Surface Dial 256k -24k	>
	Surface Duo 2 Bumper 873k +72k	>

View the most popular inventory items ready to ship today. Click item for more details.

Let's go places

Current balance

Type	Hours	Days
Sick days	8 hrs	1 day
Current accrual rate eight (8) hours or one (1) day per three (3) months.		
Paid time off	88 hrs	11 days
Current accrual rate eight (8) hours or one (1) day per one (1) month.		
Wellness	12 hrs	1.5 days
One time affordance of five (5) days in year 2021		

Submit time off

To avoid forfeiture of time you need to take and submit all vacation hours for the current calendar year prior to December 31.

Type

All day (8 hrs)

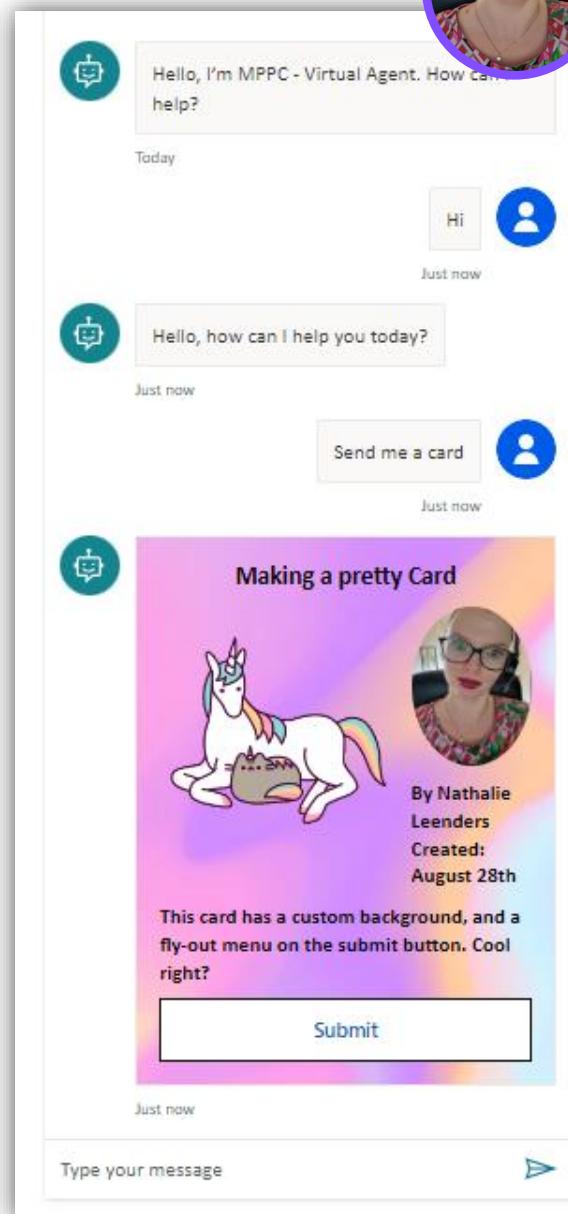
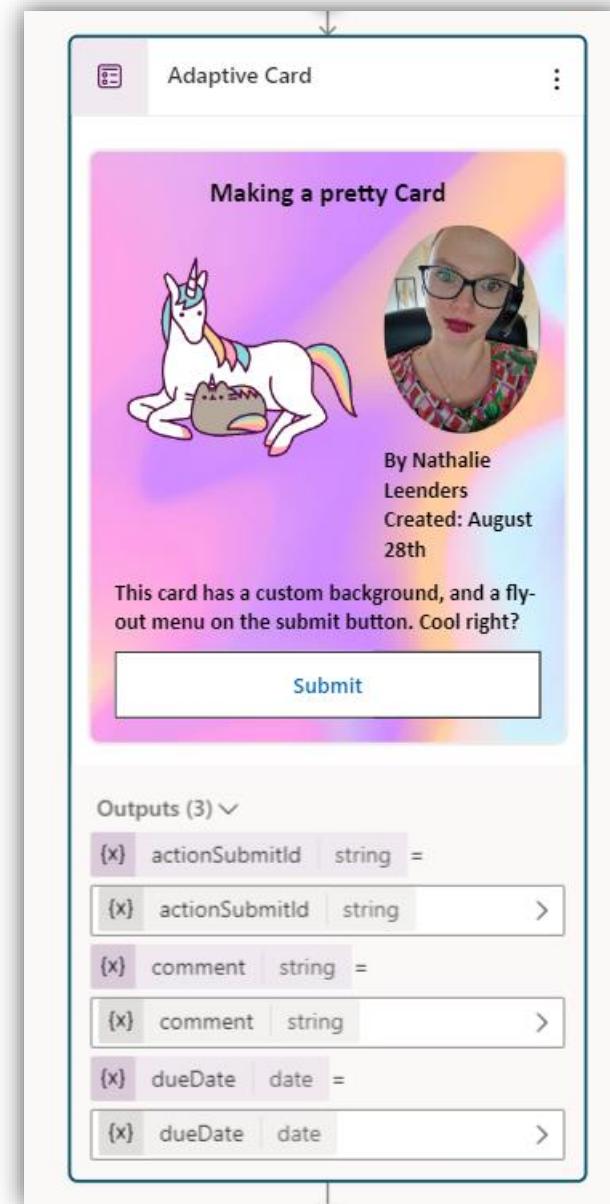
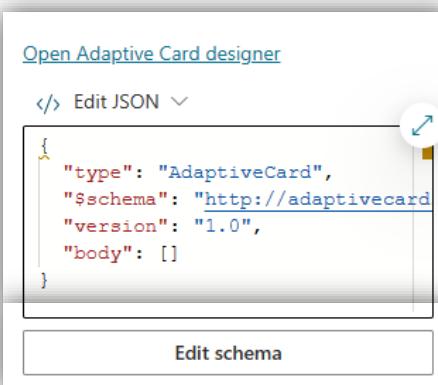
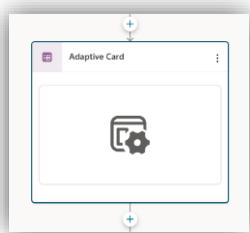
Date *

[Read FAQ](#)

Power Virtual Agent



- Create your bot, and add a new topic
- Select Add node (+), then select Ask with Adaptive Card.
- Select the card icon, which expands the properties pane for the node.
 - Or select the Node Menu (:), then select Properties.
- Enter the **JSON** of your card
- After this step, PVA automatically creates Output variables



Power Virtual Agent



Add PowerFX in your JSON to make it flexible.

You can even add reg-ex into it!

Limits unknown(!)



```
{
  '$schema': 'http://adaptivecards.io/schemas/adaptive-card.json',
  type: "AdaptiveCard",
  version: "1.5",
  body: [
    {
      type: "ColumnSet",
      columns: [
        {
          type: "Column",
          width: "2"
        }
      ],
      items: [
        {
          type: "TextBlock",
          text: Topic.Title,
          weight: "Bolder",
          size: "Medium",
          wrap: true,
          style: "heading"
        },
        {
          type: "TextBlock",
          text: Topic.Subtitle,
          isSubtle: true,
          wrap: true
        },
        {
          type: "Input.Text",
          id: "myName",
          label: "Your name (Last, First)",
         isRequired: true,
          regex: "^[A-Z][a-z]+, [A-Z][a-z]+$",
          errorMessage: "Please enter your name in the specified format"
        }
      ]
    }
  ],
  actions: [
    {
      type: "Action.Submit",
      title: "Submit"
    }
  ]
}
```





Power Virtual Agent - Demo



This is a developer environment and not meant for production use. [Learn more](#)

Search

Environment
Nathalie Leenders's Env...

?

Power Apps

Home

Create

Learn

Apps

Tables

Flows

Solutions

Connections

Choices

Cards

Custom connectors

Chatbots

More

Power Platform

Welcome, Nathalie!

Create apps that connect to data, and work across web and mobile.

Ways to create an app

Start with data

Create a table, pick an existing one, or even import from Excel to create an app.

Start with a page design

Select from a list of different designs and layouts to get your app going.

Start with an app template

Select from a list of fully-functional business app templates. Use as-is or customize to suit your needs.

Your apps

	Modified ↓	Owner	Type
	1 month ago	Nathalie Leenders	Canvas
	2 months ago	Nathalie Leenders	Model-driven
	2 months ago	Nathalie Leenders	Model-driven
	2 months ago	Nathalie Leenders	Canvas
	3 months ago	Nathalie Leenders	Model-driven
	5 months ago	Nathalie Leenders	Canvas

See more apps →

Learning for every level [See all](#)

Get started with Power Apps

Author a basic formula to change properties in a canvas app

Work with external data in a Power Apps canvas app

Manage and share apps in Power Apps

Beginner 51 min

Beginner 42 min

Intermediate 1 hr 4 min

Beginner 42 min

Ask a virtual agent



PowerBI in Adaptive cards - idea



Trigger:

- Teams keywords

Phrase:

- Get me a sales overview of 2023

What do I need?

- Specific bookmarks you can call
- PowerBI Premium License
- Export to image enabled in PowerBI Admin center
- Azure blob storage (not OneDrive)
- Make sure the image is 25KB Max

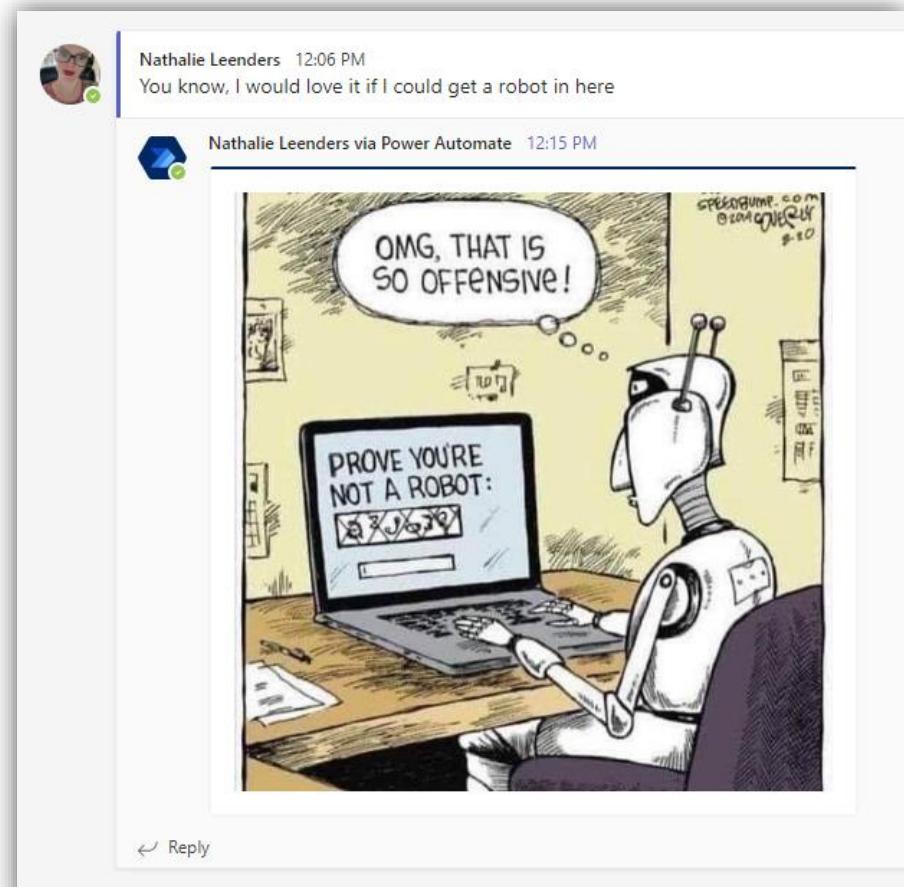
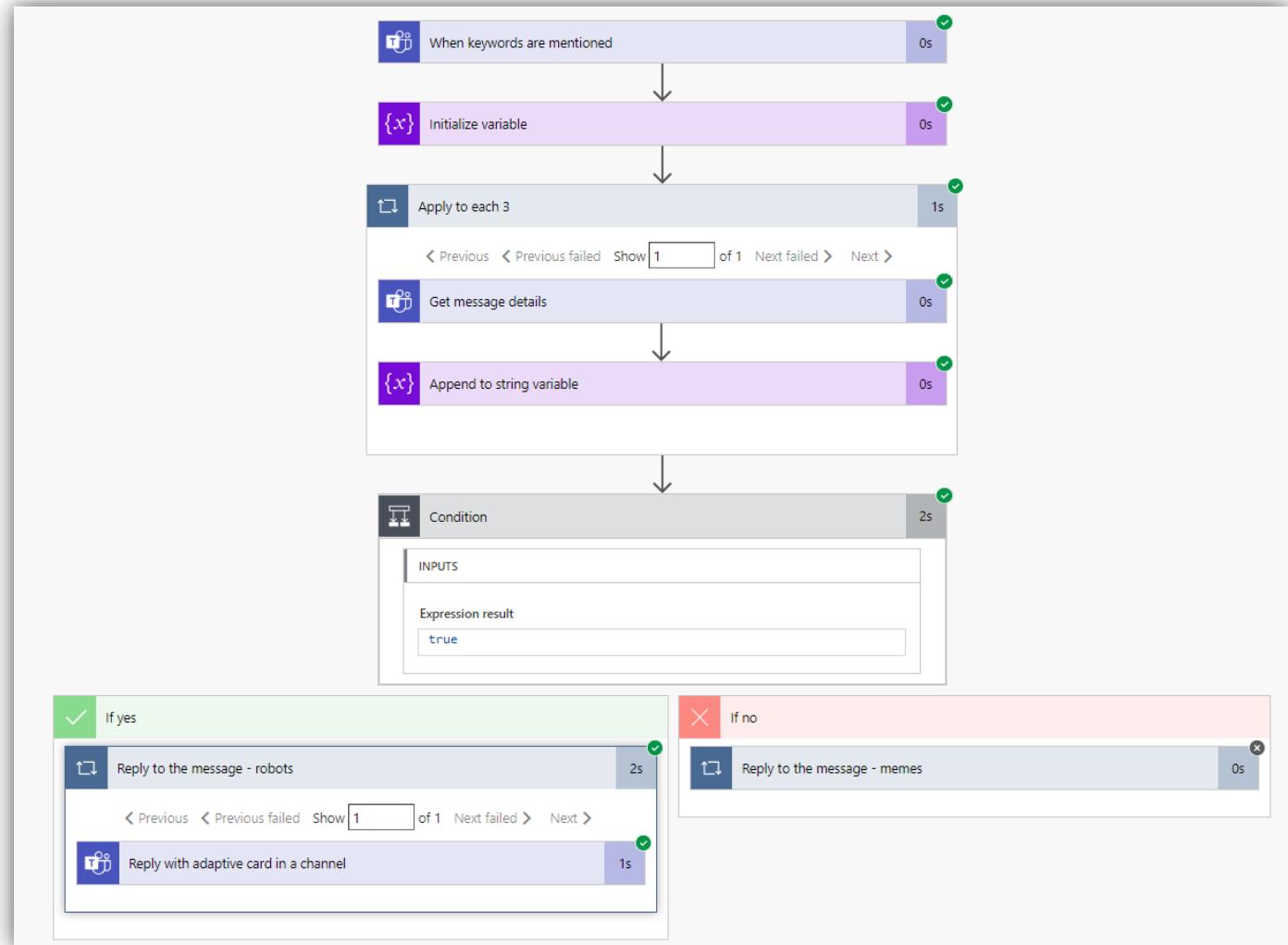
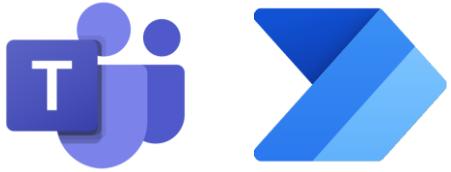
How to do this:

- Get Message Details for Teams
- [Export to file \(PNG\) for Power BI Reports](#)
- Set bookmark Name and State
- Save as image on Azure Blob Storage
- Use in your Teams Adaptive card
that responds to the keyword [Get me](#),
and [Sales overview of 2023](#)

The screenshot shows a Microsoft Teams message from Nathalie Leenders at 4:18 PM. She asks for a sales overview of 2022. Below the message is a PowerBI adaptive card. The card has a header "Quick summary" with tabs for "2022" and "2023". It includes a chart titled "Count of Date by Sales and BU" comparing Finance, Marketing, Plastics, and Sales across various dates. A note below the chart states: "\$10,000 had the highest Count of Test Table at 2, followed by \$15,000 and \$50,000, which tied for second at 1." Another note says: "\$10,000 accounted for 50.00% of Count of Test Table." A third note states: "\$10,000 had 2 Count of Test Table, \$15,000 had 1, and \$50,000 had 1."

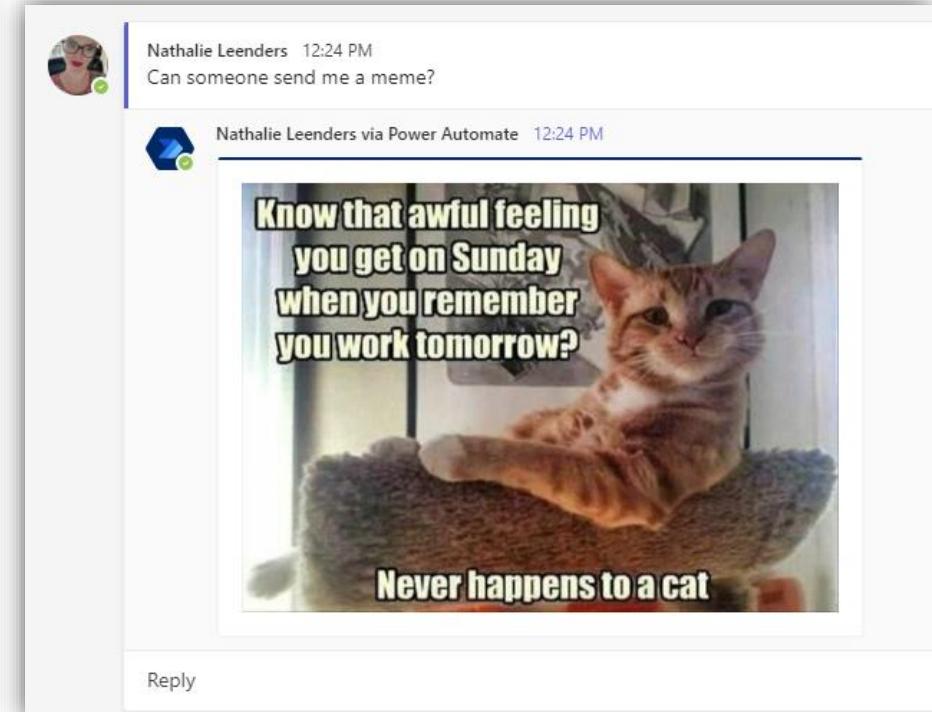
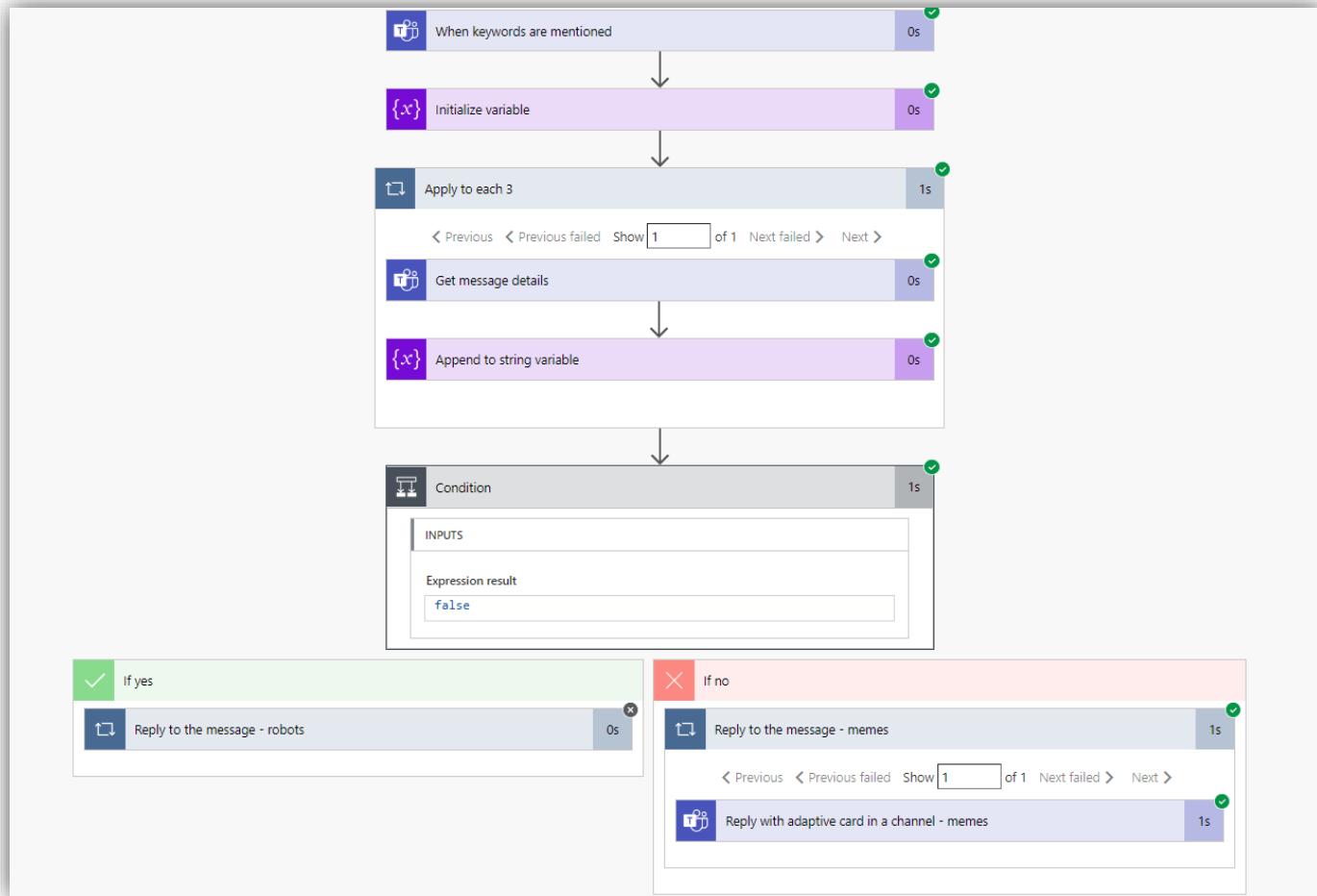
Date	Finance	Marketing	Plastics	Sales
\$464	19	18	18	18
\$3,245	18	17	18	18
\$5,454	18	18	18	18
\$5,646	18	18	18	18
\$9,548	18	18	17	18
\$10,542	17	18	18	18
\$12,546	26	27	27	27
\$485,789	18	18	18	18

Keyword trigger in MS Teams - robot



Be **very** careful to **not** include this keyword in your card, add a trigger condition to avoid loops!

Keyword trigger in MS Teams - meme





TEAMS ADAPTIVE CARDS IN GITHUB?



GitHub

WHAT CAN GITHUB BLOCKS DO FOR ME?



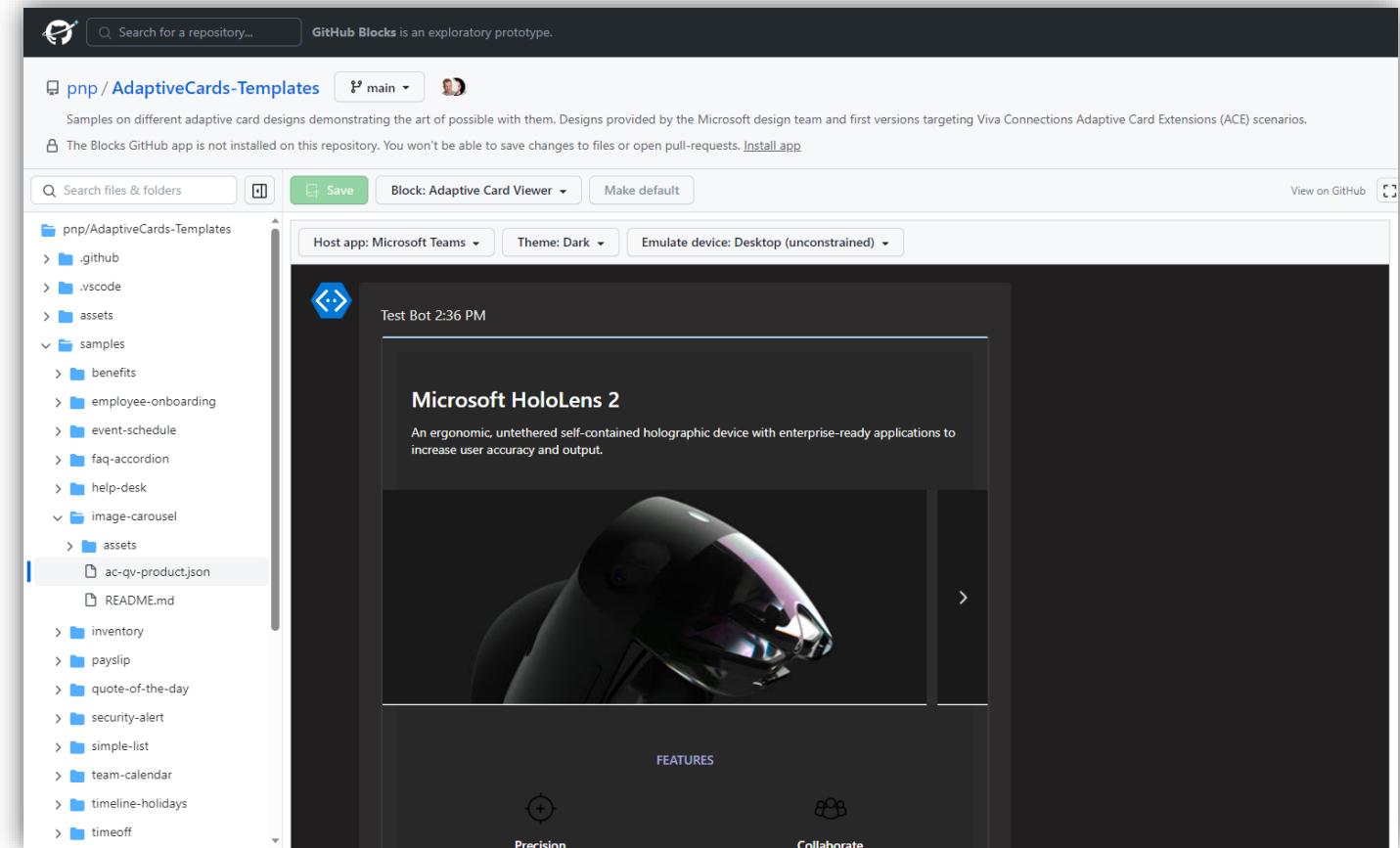
Preview adaptive card json, through GitHub!

Adaptive Card Viewer created by Hugo Bernier allows you to view your card

Construct the link as following:

1. <https://blocks.githubnext.com/>
2. Paste your link without the address.com after this
3. pnp/AdaptiveCards-Templates/blob/main/samples/image-carousel/ac-qv-product.json

Select Adaptive Card Viewer under blocks, and your theme and intended source (mine is Teams)





WHAT CAN GITHUB BLOCKS DO FOR ME?

The screenshot shows the GitHub Blocks interface for the repository `pnp / AdaptiveCards-Templates`. The repository description states: "Samples on different adaptive card designs demonstrating the art of possible with them. Designs provided by the Microsoft design team and first versions targeting Viva Connections Adaptive Card Extensions (ACE) scenarios." A note indicates that the GitHub app is not installed, so changes cannot be saved or pull requests opened.

The interface includes a sidebar with a file tree showing various adaptive card templates like `benefits`, `employee-onboarding`, and `image-carousel`. The main area displays a preview of an adaptive card for the `Microsoft HoloLens 2`. The card includes a timestamp (`Test Bot 2:36 PM`), a title (`Microsoft HoloLens 2`), a description (`An ergonomic, untethered self-contained holographic device with enterprise-ready applications to increase user accuracy and output.`), and an image of the device. Below the card are sections for `FEATURES`, `Precision`, and `Collaborate`.

[githubnext/blocks: A set of files to use as input for Blocks.](#)



DEEP DIVE INTEGRATIONS

Adaptive Card & Teams Adaptive Card capabilities

SPFX SHAREPOINT INTEGRATION?



Add a **webpart** in **SharePoint**, that can handle an adaptive card!

Also include **dynamic data from multiple sources**!

- Insert the Adaptive Cards Host web part on your page.
- Configure the **Adaptive Card Host**, click Configure to display the property pane.
- Select the **Template JSON code editor** and paste your Adaptive Card template JSON. You can find the template JSON samples on the [Adaptive Cards samples and templates page](#).

The screenshot shows a SharePoint page with a card-based interface. On the left, there's a vertical toolbar with icons for add, edit, and delete. The main area displays a card with the following details:

Publish Adaptive Card schema
Matt Hidinger
Created Tue, Feb 14, 2017

Now that we have defined the main rules and features of the format, we need to produce a schema and publish it to GitHub. The schema will be the starting point of our reference documentation.

Board: Adaptive Card
List: Backlog
Assigned to: Matt Hidinger
Due date: Not set

Set due date **Comment**

SPFX SHAREPOINT INTEGRATION?



Mobile Tablet Preview

The screenshot shows a SharePoint page with a central adaptive card host web part. The card itself has a title '{ } Configure Adaptive Card Host' and a subtitle 'To use this web part, you need to enter your Adaptive Card JSON template.' Below the subtitle is a dark blue 'Configure' button with a white arrow pointing to it. On the left side of the card, there is a vertical toolbar with icons for plus, minus, edit, and other settings. The entire card is surrounded by a dashed border. The background of the page features a decorative pattern of orange and teal dots.

[sp-dev-fx-webparts pnp/sp-dev-fx-webparts \(github.com\)](https://github.com/pnp/sp-dev-fx-webparts)



CSS coding

You can modify the CSS elements for a card however they don't translate to the teams card.

- Teams Adaptive cards support all functions mentioned in the adaptive card designer.
- CSS is currently not working in a Teams adaptive card, but it is possible in an adaptive card.

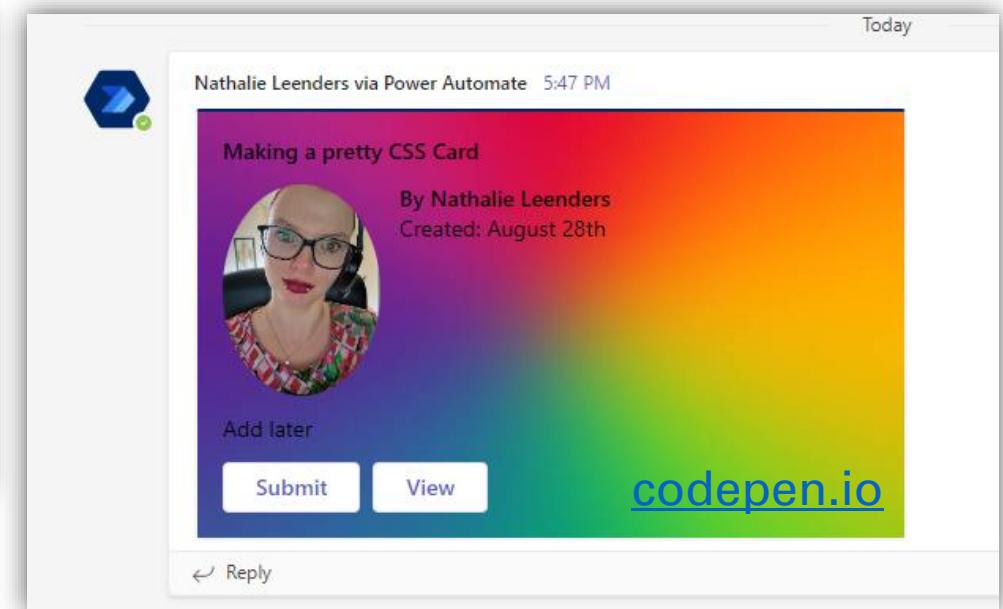
Adaptive Cards CSS? 🛡️
Nathalie Leenders

HTML

```
75      }
76    ],
77    "actions": [
78      {
79        "type": "Action.Submit",
80        "title": "OK"
81      }
82    ],
83    "$schema":
84      "http://adaptivecards.io/schemas/adaptive-card.json"
85  },
86  {
87    "type": "Action.OpenUrl",
```

CSS

```
1  #card-ds {
2    max-width: 450px;
3    margin: 24px;
4    border: 1px solid: #000;
5    border-radius: 10px;
```





CSS through the SDK

You can use HTML and CSS classes for styling an adaptive card (NOT Teams)

Be careful to test if it works before you create long codes!



Learn / Adaptive Cards /

Native styling - JavaScript

Article • 07/26/2019 • 1 contributor

Use CSS for fine-grained styling of the card HTML.

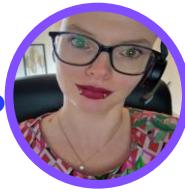
The following CSS classes will be added to various elements.

CSS class	Usage
.ac-container	containers
.ac-selectable	elements with <code>selectAction</code>
.ac-image	image
.ac-pushButton	actions rendered like buttons
.ac-linkButton	actions rendered like links
.ac-input	input controls
.ac-textInput	text input
.ac-multiline	multiline text input
.ac-numberInput	number input
.ac-datetimeInput	date input
.ac-timeInput	time input
.ac-multichoiceInput	multichoice input

Feedback

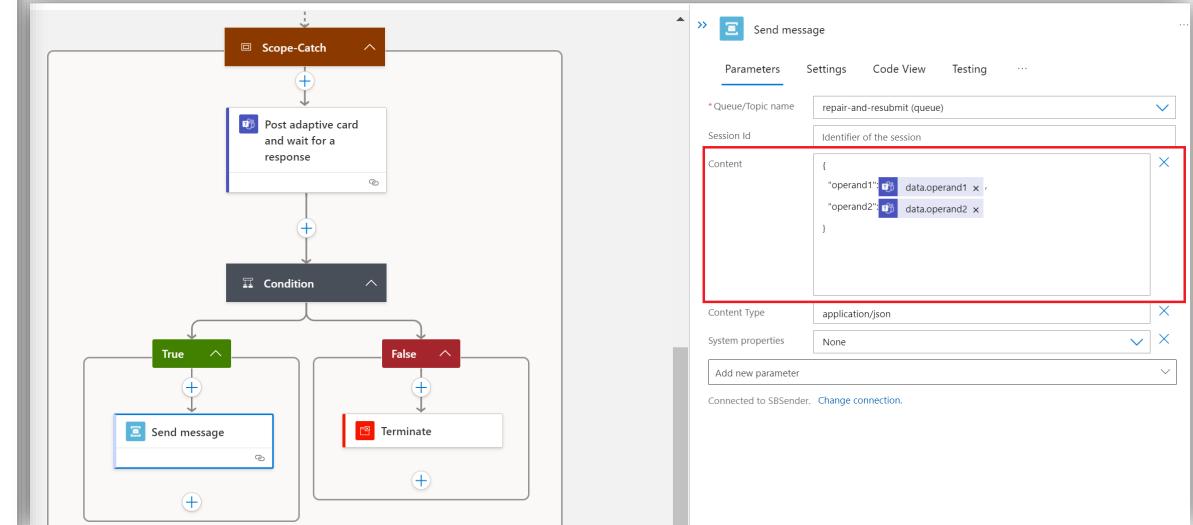
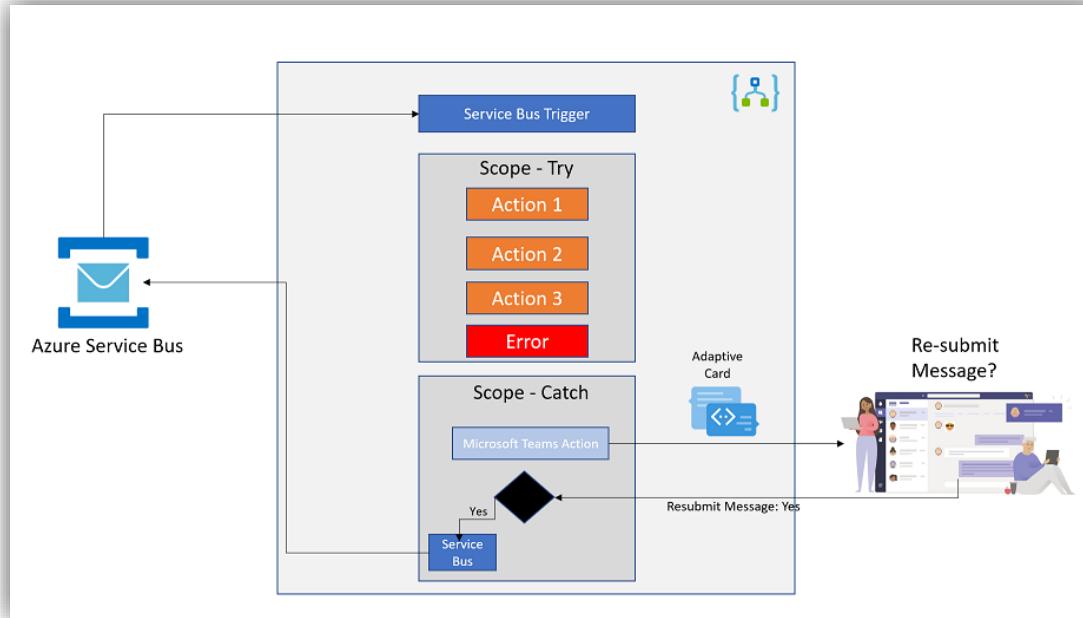
Submit and view feedback for

[Native styling - JavaScript SDK - MS Learn](#)



AZURE FUNCTIONS/LOGIC APPS

- Respond to Azure service bus events by posting an adaptive card

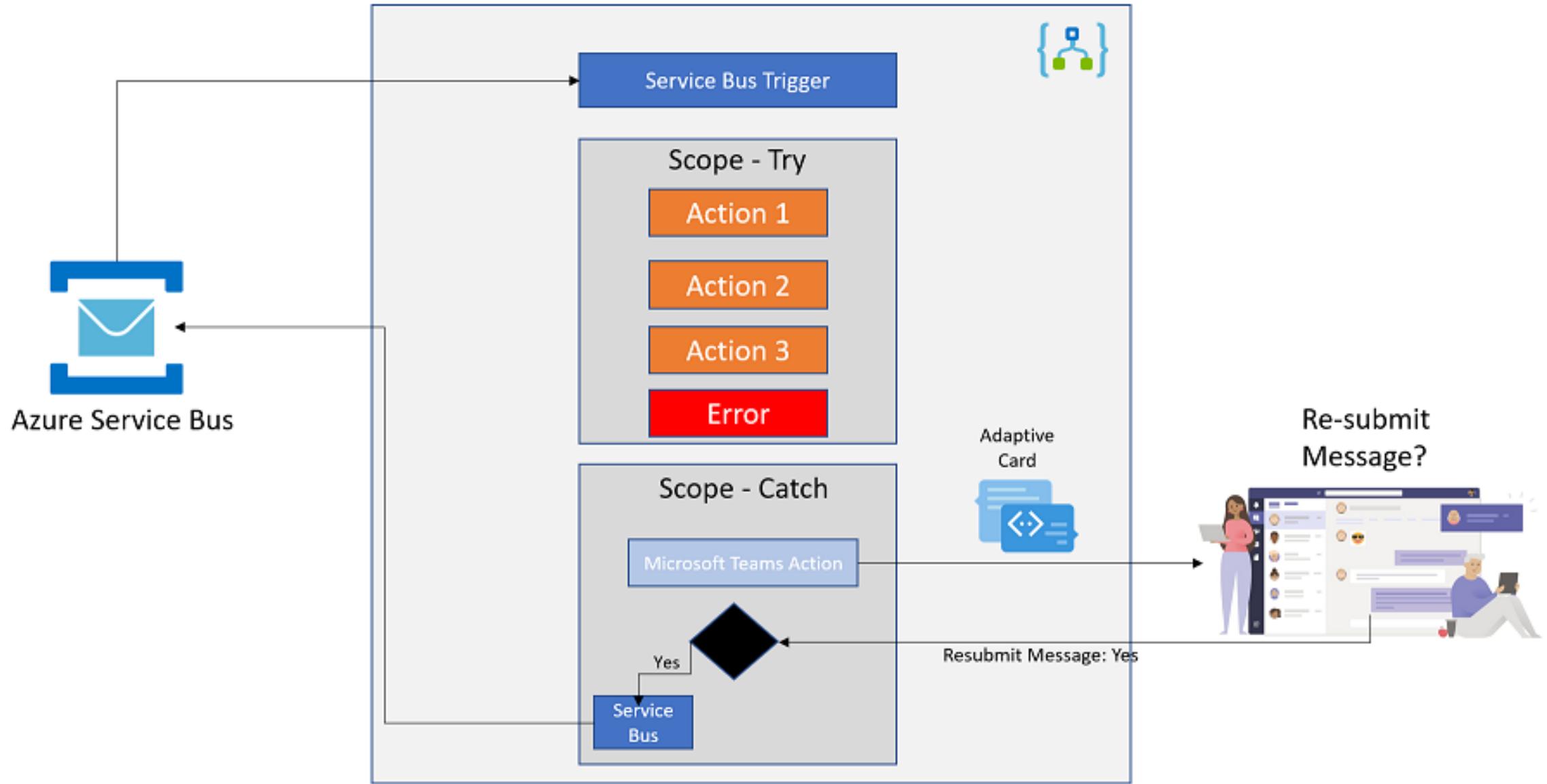


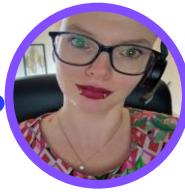
[Sending Adaptive Cards to Microsoft Teams users from Azure Logic Apps \(serverlessnotes.com\)](https://serverlessnotes.com)





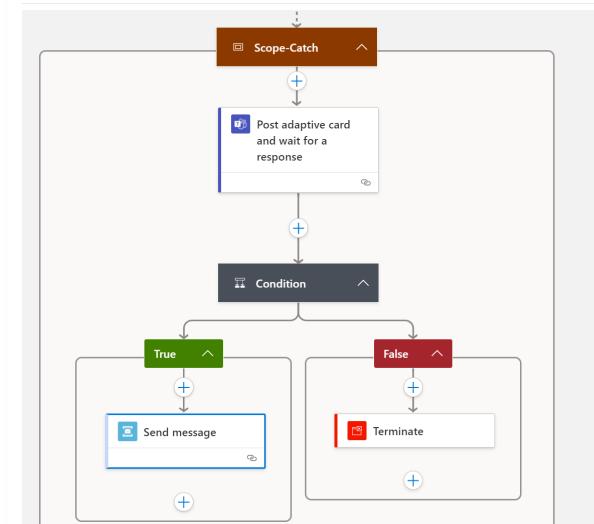
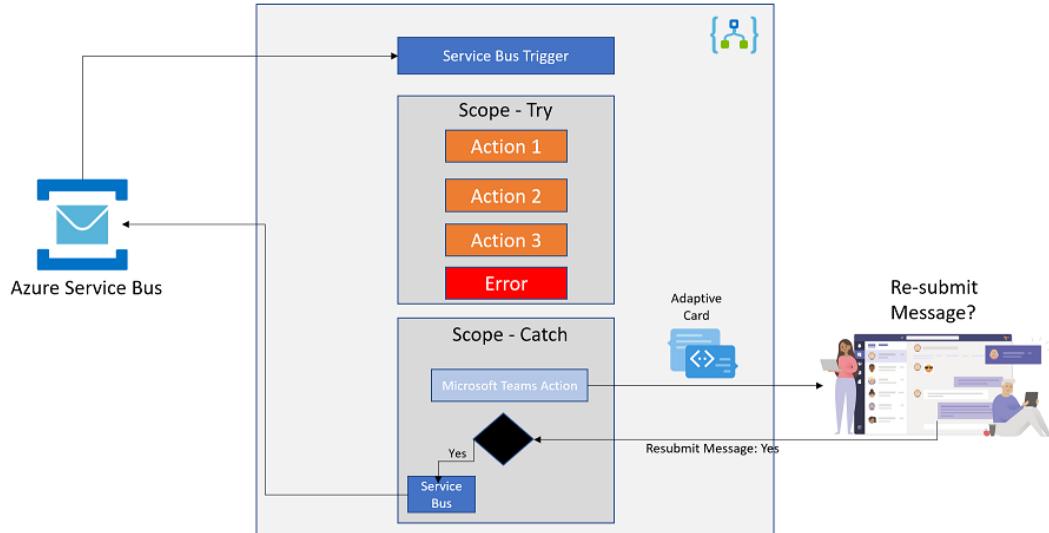
AZURE FUNCTIONS/LOGIC APPS





AZURE FUNCTIONS/LOGIC APPS

- Respond to Azure service bus events by posting an adaptive card



A screenshot of the Logic App configuration for the "Send message" action. The "Queue/Topic name" is set to "repair-and-resubmit (queue)". The "Content" field contains the JSON payload:

```
{"operand1": "data.operand1", "operand2": "data.operand2"}
```

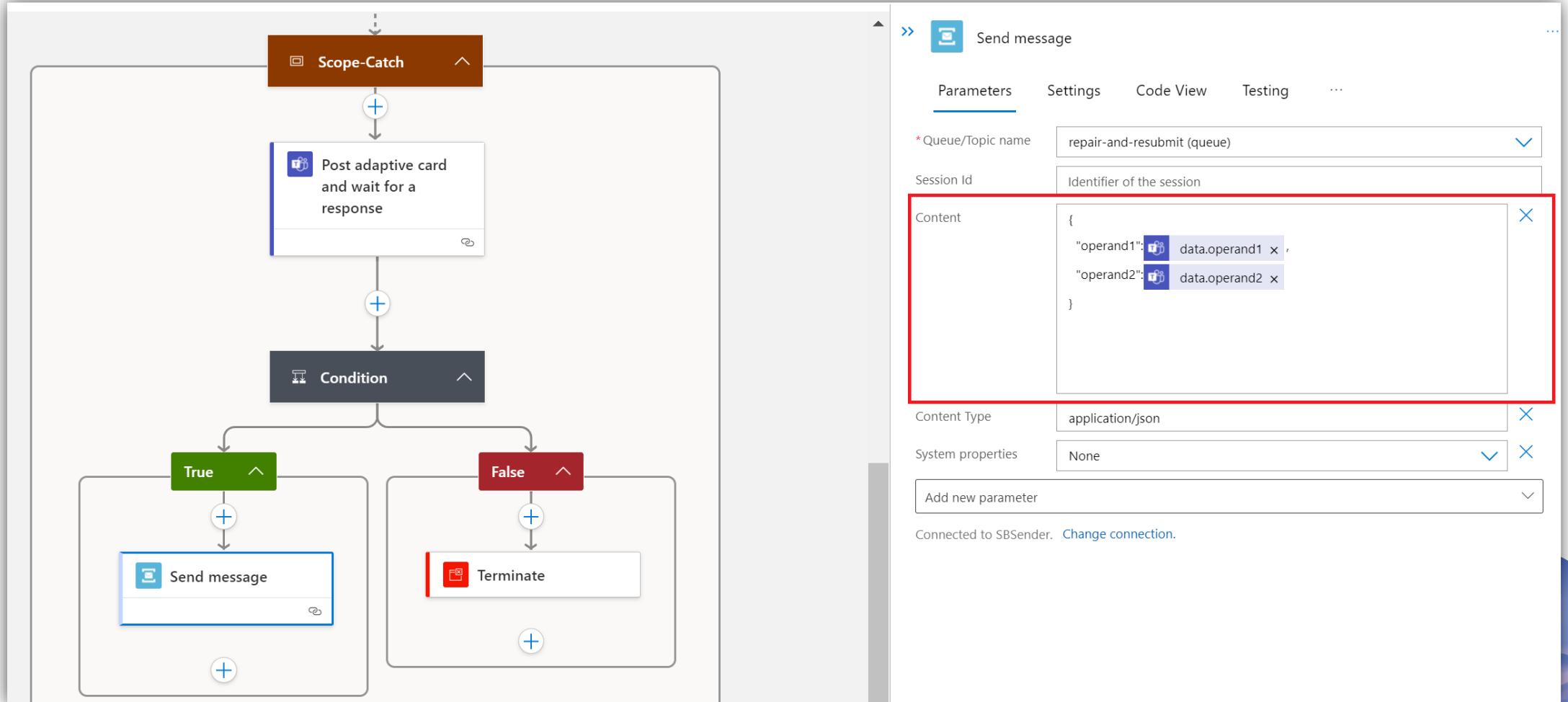
. The "Content Type" is set to "application/json". The "System properties" dropdown is set to "None". A note at the bottom indicates a connection to "SBSender".

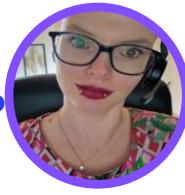
[Sending Adaptive Cards to Microsoft Teams users from Azure Logic Apps \(serverlessnotes.com\)](https://serverlessnotes.com)





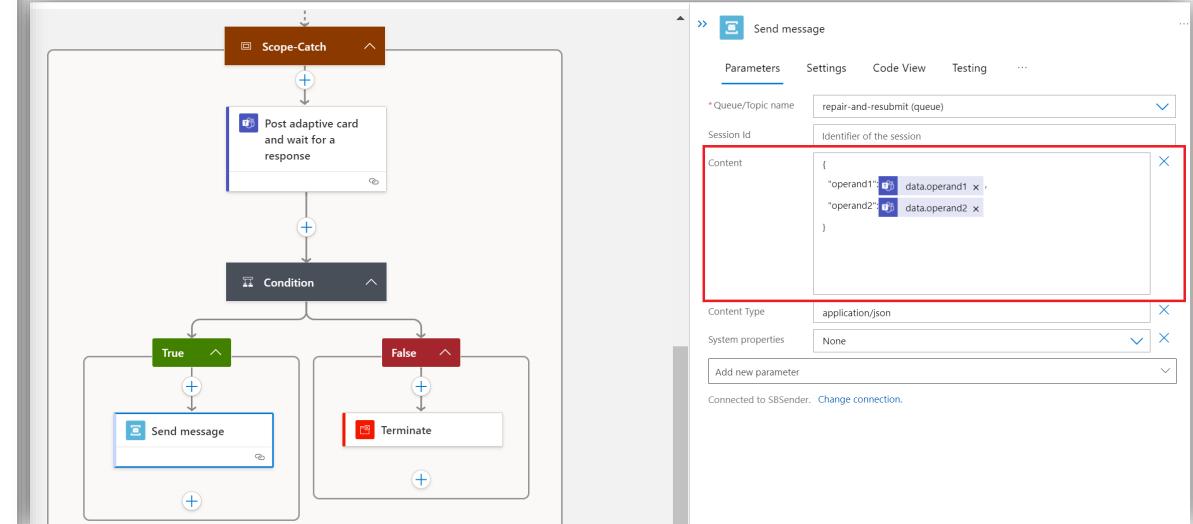
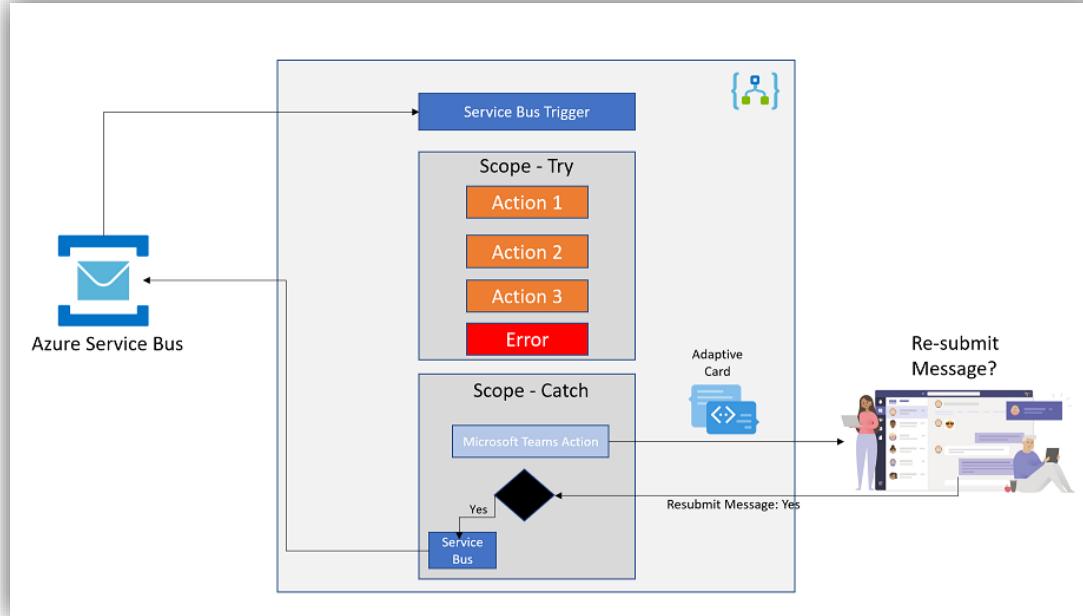
AZURE FUNCTIONS/LOGIC APPS





AZURE FUNCTIONS/LOGIC APPS

- Respond to Azure service bus events by posting an adaptive card



[Sending Adaptive Cards to Microsoft Teams users from Azure Logic Apps \(serverlessnotes.com\)](https://serverlessnotes.com)





VISUAL STUDIO CODE + LOOP BASED COMPONENTS

Be careful of the schema!
While they do support Metadata (1.6), Teams doesn't have it yet.

A screenshot of Visual Studio Code showing an Adaptive Card Schema JSON file. The code editor displays the following JSON:

```
1  {
2      "type": "AdaptiveCard",
3      "version": "1.6",
4      "metadata": {
5          "webUrl": "[https://](https://)sync.appfluence.com/native/api/v1/item/1640094899"
6      },
7      "refresh": {
8          "action": {
9              "type": "Action.Execute",
10             "verb": "..."
11         }
12     },
13     "body": { ... }
14 }
15 }
```

The file path shown in the status bar is C: > Users > mumuthus > Desktop > Adaptive Card Schema.json

A screenshot of the SAP S/4HANA mobile application showing a credit limit request. The card includes the following information:

- Hi Andrew, need your approval for the credit limit request below,
- SAP S/4HANA logo
- Credit limit request 3000004023 (Status: In Approval)
- Current Risk Class: E (Very High Default Risk)
- Requested by: Mark Fullbright
- Approvers: [Profile icons]
- Current Credit Management Data:

Current Credit Limit	Static Credit Exposure	Static Credit Limit Utilization
50.000.000,00 USD	34.184.180,40 USD	68,4
- Key Figures, Charts & Snapshot Data
- Approve and Reject buttons



VIVA

Upcoming Live Eve... X

Upcoming Live Events

View our upcoming events below and click to join.

Tech & Data Live Event 2

19/02/2022 11:00

Come and join us for February's Tech & Data live event.

[Join Event](#)



Leadership

28/02/2022 11:00

Come and join the monthly roundtable with the Senior Leadership Team.

[Join Event](#)



Microsoft Ignite

Microsoft Ignite 2021

Schedule

Join us November 2–3, 2021 to explore the latest tools, training sessions, technical expertise, networking opportunities, and more.

See what's coming up and when it will be happening. The schedule adjusts to your time zone and content is updated regularly, so check back often.

DAY 1

Tuesday, November 2

Time	Description
8:00 AM - 8:15 AM	Welcome to Microsoft Ignite: join your daily hosts who will get you ready for the day.
8:15 AM - 11:00 AM	Keynotes: hear from Microsoft leadership on revealing the latest innovations that are shaping the flexible, innovative, and secure business environments of the future.
11:30 AM - 4:00 PM	Breakout Sessions: you have the opportunity to select the sessions best suited for your role and interests.
11:30 AM - 4:00 PM	Connection and Learning Zone: connect with your global community in live interactive sessions, join Learning Zone opportunities, get Microsoft Certified and so much more.
7:15 PM - 10:00 PM	Welcome to Microsoft Ignite's APAC broadcast: hear from Microsoft leadership on revealing the latest innovations that are shaping the flexible, innovative, and secure business environments of the future.
10:00 PM - 1:00 AM	Connection Zone: join your community and hear from local Microsoft leaders and experts through Local Connection sessions to find out what's new in your region.

DAY 2



VIVA

 OFFICE

Frequently asked questions

Plan a remote gathering, create school projects, set health and fitness goals, and manage your household budget with the apps, tools, and features of Microsoft 365.

What Office apps do I get with Microsoft 365? ▾

What is the difference between Office 365 and Microsoft 365? ▾

Microsoft 365 includes everything you know in Office 365. Microsoft 365 is designed to help people and businesses achieve more with innovative Office apps, intelligent cloud services, and world-class security.

Is internet access required for Microsoft 365? ▾

What happens to existing Office 365 subscriptions for home and business? ▾

Does Microsoft 365 cost more? ▾

No, the subscription cost will not change.

Still curious?

Ask your question here

Get answers

 OFFICE

Frequently asked questions

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What Office apps do I get with Microsoft 365? ▾

Get Office apps such as Word, Excel, PowerPoint, Outlook, OneNote, OneDrive, and more.

[Learn more about Microsoft 365 plans for:](#)



Home



Business



Enterprise



Education

 OFFICE

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Home



Business



Enterprise



Education

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Is internet access required for Microsoft 365? ▾

What happens to existing Office 365 subscriptions for home and business? ▾

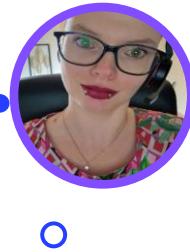
Does Microsoft 365 cost more? ▾

Still curious?

Ask your question here

Get answers

 Accordion view supported by Teams



GO DEEPER INTO TEAMS ADAPTIVE CARDS?

<https://madewithcards.io/>
[Adaptive Cards](#)
[Roadmap | Adaptive Cards](#)
[Feature Roadmap \(github.com\)](#)

Newly enabled this year:
Overflow menu (1.5)
Markdown enabled in approvals

Future versions
Metadata (Preview in 1.6)
Media (now only MP4 is supported)





RECAP



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Teams Adaptive Cards

Understanding the Technical Structure.

Initiating Adaptive Cards

Cards vs Teams Adaptive Cards

Understanding Approvals

Different scenarios & some limitations

Deep dive

Azure Logic Apps
Visual Studio Code
Loop
VIVA
CSS



OUR GOAL IS ALWAYS TO:

1. Bring the message to where people regularly interact.
2. Remove complexity through optimization of the way people interact with data.
3. Drive compelling events through simple interactions.



A screenshot of the Whova mobile application interface. At the top, there's a purple header bar with the time '2:59' and signal strength. Below it is a navigation bar with icons for profile, 'Home', and 'Switch Event'. The main content area has a white background. It starts with a section titled 'Exhibitor Hub' containing four items: 'Exhibiting Booth Profile', 'Promotional Offers', 'Collect Leads/Contacts', and 'Promote Your Booth'. Below this is another section titled 'Additional Resources' with six buttons: 'Leaderboard', 'Photos', 'Documents', 'Floormap', 'Session Q&A', 'Speakers', 'Surveys' (which is circled in red), 'Videos', and 'Exhibitors'. At the bottom of the screen are five navigation icons: 'Home' (selected), 'Agenda', 'Attendees', 'Community', and 'Messages'.

Session Feedback Surveys

We really want to hear from YOU!

In the pursuit of making next year's Microsoft Power Platform Conference even better, we want to hear your feedback about this session.

Here's How -

- *Simply go to the Whova App on your smartphone*
- *Scroll down on the Microsoft Power Platform Conference Homepage to 'Additional Resources' to click "Surveys".*
- *Click Session Feedback.*
- *Scroll down to find this session title.*
- *Complete the session feedback survey.*
- *Finally, click 'Submit'*

It's just that easy!



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Microsoft Fabric, Microsoft*



JESSICA HAWK

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AI, MR Product Marketing,
Microsoft*

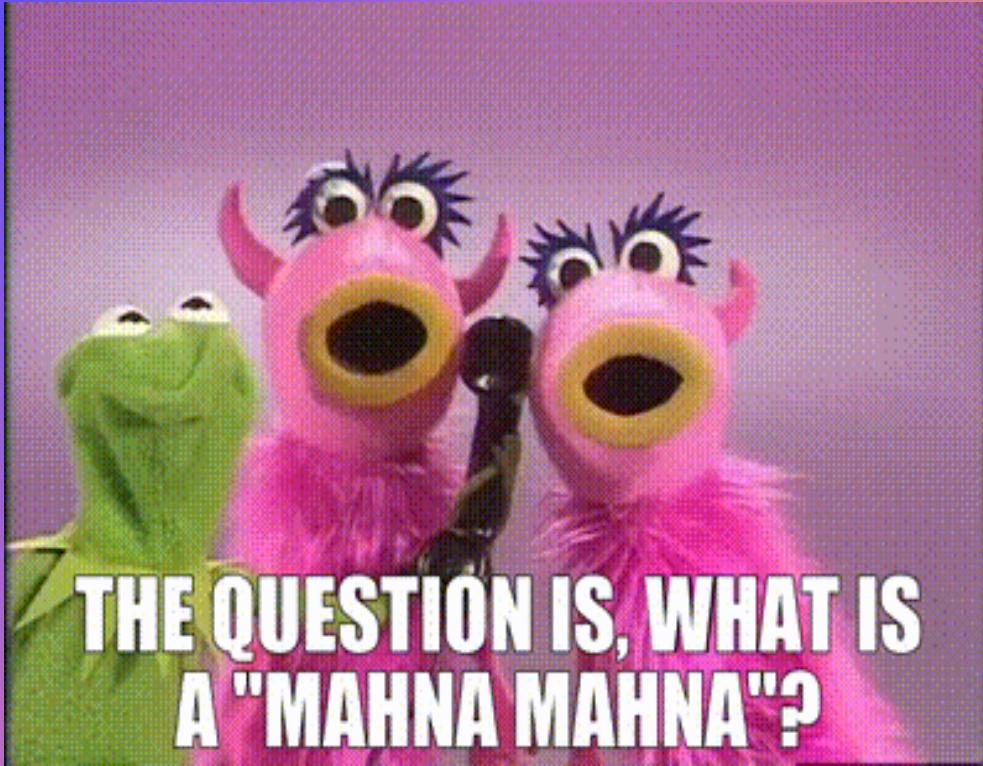


ERIC BOYD

*Corporate Vice President AI
Platform, Microsoft*



+ .QUESTIONS?



Useful links

[Microsoft Learn Cards Documentation](#)

[Microsoft Learn - Adaptive-cards](#)

[Release AdaptiveCards Schema 1.5 github.com](#)

Future additions

[Feature Roadmap \(github.com\)](#)

[Adaptive Cards metadata update card sample - Power Automate | Microsoft Learn](#)

[Microsoft Learn - Tools for Visual studio code extensions](#)

Taking teams adaptive
cards further than ever
before



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THANK YOU

Nathalie Leenders & Chris Huntingford

